



AZ23C2V7 THRU AZ23C51

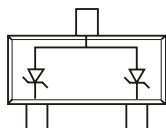
Features

- Dual zeners in common anode configuration.
- 300mW power dissipation rating.
- Ideally suited for automatic insertion.
- Δv_z for both diodes in one case is $\leq 5\%$.
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Absolute Maximum Ratings

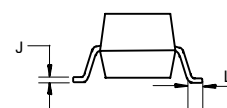
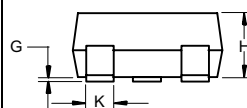
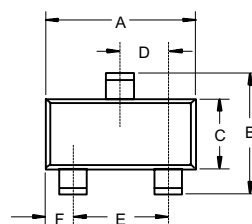
| Symbol | Parameter | Rating | Unit |
|------------|---|-------------|---------------|
| P_D | Power dissipation | 300 | mW |
| R_{thJA} | Thermal Resistance, Junction to Ambient Air | 417 | $^{\circ}C/W$ |
| T_{STG} | Storage Temperature Range | -65 to +175 | $^{\circ}C$ |

*Pin Configuration - Top View



**300 mW
Zener Diode
2.7 to 51 Volts**

SOT-23



| DIMENSIONS | | | | | |
|------------|--------|-------|------|------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | .110 | .120 | 2.80 | 3.04 | |
| B | .083 | .104 | 2.10 | 2.64 | |
| C | .047 | .055 | 1.20 | 1.40 | |
| D | .035 | .041 | .89 | 1.03 | |
| E | .070 | .081 | 1.78 | 2.05 | |
| F | .018 | .024 | .45 | .60 | |
| G | .0005 | .0039 | .013 | .100 | |
| H | .035 | .044 | .89 | 1.12 | |
| J | .003 | .007 | .085 | .180 | |
| K | .015 | .020 | .37 | .51 | |
| L | .007 | .020 | .20 | .50 | |

AZ23C2V7 THRU AZ23C51

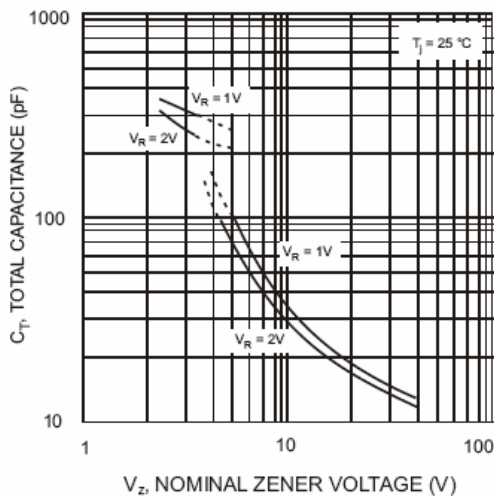
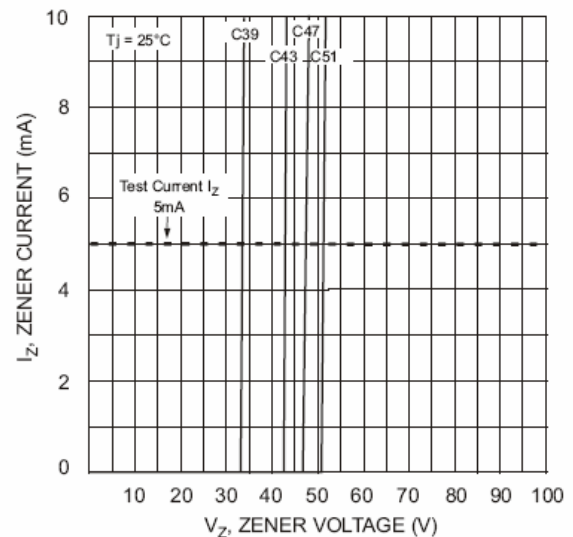
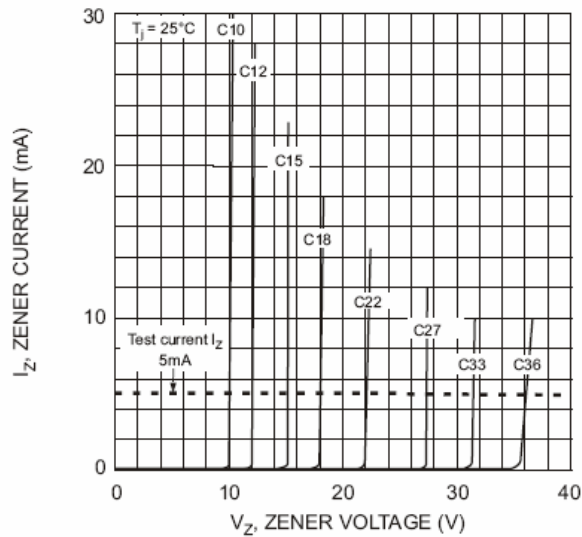
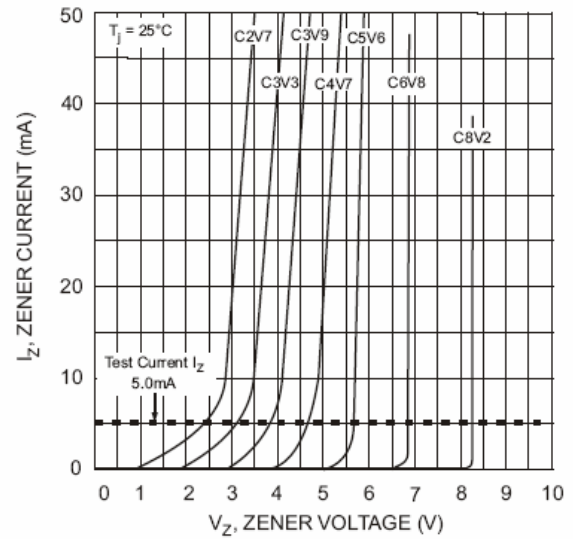
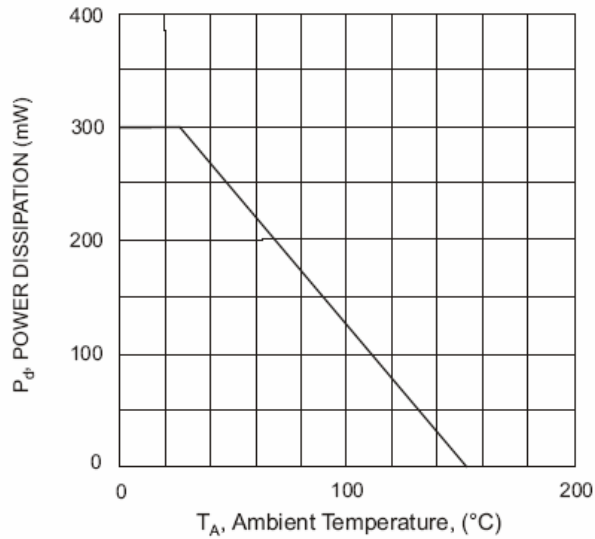
Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Type Number | Marking Code | Zener voltage Range (note1) | Maximum zener Impedance (note 2) | | Typical Temperature coefficient T_c (%/ $^\circ\text{C}$) | Min reverse Voltage (note1) |
|-------------|--------------|-----------------------------|----------------------------------|------------------------------|---|-----------------------------|
| | | @ $I_{ZT}=5.0\text{mA}$ | $Z_{ZT}@I_{ZT}=5.0\text{mA}$ | $Z_{Zk}@I_{Zk}=1.0\text{mA}$ | | @ $I_R=0.1\mu\text{A}$ |
| | | V_Z (volts) | Ohms | Ohms | | V_R (volts) |
| AZ23C2V7 | KD1 | 2.5-2.9 | 83 | 500 | -0.065 | — |
| AZ23C3V0 | KD2 | 2.8-3.2 | 95 | 500 | -0.060 | — |
| AZ23C3V3 | KD3 | 3.1-3.5 | 95 | 500 | -0.055 | — |
| AZ23C3V6 | KD4 | 3.4-3.8 | 95 | 500 | -0.055 | — |
| AZ23C3V9 | KD5 | 3.7-4.1 | 95 | 500 | -0.050 | — |
| AZ23C4V3 | KD6 | 4.0-4.6 | 95 | 500 | -0.035 | — |
| AZ23C4V7 | KD7 | 4.4-5.0 | 78 | 500 | -0.015 | — |
| AZ23C5V1 | KD8 | 4.8-5.4 | 60 | 480 | +0.005 | 0.8 |
| AZ23C5V6 | KD9 | 5.2-6.0 | 40 | 400 | +0.020 | 1.0 |
| AZ23C6V2 | KDA | 5.8-6.6 | 10 | 200 | +0.030 | 2.0 |
| AZ23C6V8 | KDB | 6.4-7.2 | 8.0 | 150 | +0.045 | 3.0 |
| AZ23C7V5 | KDC | 7.0-7.9 | 7.0 | 50 | +0.050 | 5.0 |
| AZ23C8V2 | KDD | 7.7-8.7 | 7.0 | 50 | +0.055 | 6.0 |
| AZ23C9V1 | KDE | 8.5-9.6 | 10 | 50 | +0.065 | 7.0 |
| AZ23C10 | KDF | 9.4-10.6 | 15 | 70 | +0.065 | 7.5 |
| AZ23C11 | KDG | 10.4-11.6 | 20 | 70 | +0.070 | 8.5 |
| AZ23C12 | KDH | 11.4-12.7 | 20 | 90 | +0.075 | 9.0 |
| AZ23C13 | KDI | 12.4-14.1 | 25 | 110 | +0.080 | 10.0 |
| AZ23C15 | KDJ | 13.8-15.6 | 30 | 110 | +0.080 | 11.0 |
| AZ23C16 | KDK | 15.3-17.1 | 40 | 170 | +0.090 | 12.0 |
| AZ23C18 | KDL | 16.8-19.1 | 50 | 170 | +0.090 | 14.0 |
| AZ23C20 | KDM | 18.8-21.2 | 50 | 220 | +0.090 | 15.0 |
| AZ23C22 | KDN | 20.8-23.3 | 55 | 220 | +0.090 | 17.0 |
| AZ23C24 | KDO | 22.8-25.6 | 80 | 220 | +0.090 | 18.0 |
| AZ23C27 | KDP | 25.1-28.9 | 80 | 250 | +0.090 | 20.0 |
| AZ23C30 | KDQ | 28-32 | 80 | 250 | +0.090 | 22.5 |
| AZ23C33 | KDR | 31-35 | 80 | 250 | +0.090 | 25.0 |
| AZ23C36 | KDS | 34-38 | 90 | 250 | +0.090 | 27.0 |
| AZ23C39 | KDT | 37-41 | 90 | 300 | +0.110 | 29.0 |
| AZ23C43 | D30 | 40-46 | 100 | 700 | +0.110 | 32.0 |
| AZ23C47 | D31 | 44-50 | 100 | 750 | +0.110 | 35.0 |
| AZ23C51 | D32 | 48-54 | 100 | 750 | +0.110 | 38.0 |

Notes: 1. Short duration test pulse used to minimize self-heating effect.

2. $f=1\text{kHz}$

AZ23C2V7-AZ23C51



Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com